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DEPARTMENT OF COMMERCE

Bureau of Industry and Security

15 CFR Part 774

[Docket No. 161102999-6999-01]

RIN 0694-AH20

Commerce Control List: Updates Based on the 2015 and 2016 Nuclear Suppliers Group (NSG) Plenary Meetings; Conforming Changes and Corrections to Certain Nuclear Nonproliferation (NP) Controls

AGENCY: Bureau of Industry and Security, Commerce.

ACTION: Final rule.

SUMMARY: The Bureau of Industry and Security (BIS) publishes this final rule to amend the Export Administration Regulations (EAR) to reflect the understandings reached at the June 2015 Nuclear Suppliers Group (NSG) Plenary meeting held in Bariloche, Argentina, and certain

understandings reached at the 2016 NSG Plenary meeting held in Seoul, Republic of Korea. The amendments to the EAR based on the 2015 meeting address the nuclear nonproliferation (NP) controls that apply to certain centrifugal multiplane balancing machines described on the Commerce Control List (CCL). The amendments to the EAR based on the 2016 meeting address the NP controls that apply to certain linear displacement measuring systems identified on the CCL. This rule also makes additional changes to the description of these systems on the CCL to fully conform to their description on the NSG Annex. In addition, this rule corrects an error in the technical parameters of the CCL entry that describes certain radiation-hardened TV cameras (including lenses therefor) that are subject to NP controls.

DATES: This rule is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT: Steven Clagett, Director, Nuclear and Missile Technology Controls Division, Office of Nonproliferation and Treaty Compliance, Bureau of Industry and Security, Telephone: (202) 482-1641.

SUPPLEMENTARY INFORMATION:

The Bureau of Industry and Security (BIS) is amending the Export Administration Regulations (EAR) to revise the nuclear nonproliferation (NP) controls that apply to certain items identified on the Commerce Control List (CCL), consistent with U.S. commitments as a participating country in the Nuclear Suppliers Group (NSG). The NSG is a multilateral export control forum

that consists of 48 participating countries. The NSG maintains a list of dual-use items that could be used for nuclear proliferation activities. The list is maintained in the NSG Annex to the "Guidelines for the Transfer of Nuclear Related Dual Use Equipment, Materials, Software and Related Technology" (the NSG Annex). NSG participating countries share a commitment to prevent nuclear proliferation and the development of nuclear related weapons of mass destruction. In furtherance of that commitment, they have undertaken to impose export controls on listed items. The NSG Guidelines and the Annex thereto are designed to ensure that nuclear trade for peaceful purposes does not contribute to the proliferation of nuclear weapons or related proliferation activities.

This final rule amends the CCL by revising Export Control Classification Number (ECCN) 2B206: (1) to reflect the changes affecting certain linear displacement measuring systems listed in the NSG Annex, based on the understandings reached at the NSG Plenary meeting held in Seoul, Republic of Korea, on June 23 and 24, 2016; and (2) to further revise the description of these systems on the CCL to fully conform to their description on the NSG Annex. This rule also revises ECCN 2B229 to reflect the changes affecting certain centrifugal multiplane balancing machines listed in the NSG Annex, based on the understandings reached at the NSG Plenary meeting held in Bariloche, Argentina, on June 3-5, 2015. In addition, this rule corrects an error in the technical parameters of ECCN 6A203.d, which describes certain radiation-hardened TV cameras identified on the NSG Annex.

ECCN 2B206 – Amended to Conform the NP Controls on Linear Displacement Measuring

Systems with the NSG Annex (as updated to reflect the 2016 NSG Plenary changes)

This rule amends ECCN 2B206 to more accurately and completely reflect the description of certain dimensional inspection machines listed in the NSG Annex. These changes are related to BIS's September 20, 2016, final rule (81 FR 64656) that included certain amendments to ECCN 2B006 to reflect the December 2015 updates to the List of Dual-Use Goods and Technologies maintained by participating governments in the Wassenaar Arrangement (WA). The amendments to ECCN 2B006 also affected the scope of the NP controls in that ECCN. Specifically, the September 20, 2016, final rule revised the controls that applied to certain measuring systems by changing the technical parameters in a manner that removed certain linear displacement measuring systems identified on the NSG Annex from control under ECCN 2B006.

As a result of the aforementioned change in the scope of the NP controls in ECCN 2B006, this rule amends ECCN 2B206 by adding a new paragraph .c, consistent with the description of the measuring systems in NSG Annex 1.B.3.b.3. New 2B206.c controls linear displacement measuring systems that contain a "laser" and that maintain, for at least 12 hours over a temperature range of \pm 1 K around a standard temperature and a standard pressure, both: (1) a "resolution" over their full scale of 0.1 μ m or better; and (2) a "measurement uncertainty" equal to or better (less) than (0.2 + L/2000) μ m (L is the measured length in millimeters). This rule also adds a Control Note and a Technical Note for new 2B206.c. The Control Note to new paragraph .c indicates that 2B206.c does not control measuring interferometer systems, without closed or open loop feedback, that contain a "laser" to measure slide movement errors of machine tools, dimensional inspection machines, or similar equipment. The Technical Note to new paragraph .c states that "linear displacement," for purposes of 2B206.c, means the change of

distance between the measuring probe and the measured object.

The text of new paragraph .c to ECCN 2B206 also reflects the updates to the NSG Annex based on the understandings reached at the 2016 NSG Plenary meeting held in Seoul, Republic of Korea. Specifically, paragraph .c.1 reads "Containing a laser," which replaces the phrase "Contain a laser" that was previously used in 1.B.3.b.3.a on the NSG Annex. In addition, paragraph .c.2 contains the phrase "Capable of maintaining," which replaces the word "Maintain" that was previously used in 1.B.3.b.3.b on the NSG Annex. Amendments to other ECCNs on the CCL, based on the 2016 NSG Plenary understandings, will be published by BIS in a separate rule.

This rule also moves the "Control Notes to ECCN 2B206" and the "Technical Note to ECCN 2B206," which were previously located at the end of this ECCN, to the beginning of the "Items" paragraph for ECCN 2B206 (i.e., immediately before 2B206.a), because these notes apply to the entire ECCN, unlike the aforementioned notes for new 2B206.c. In addition, the "ECCN Controls" paragraphs, which were previously included under the "List of Items Controlled" for this ECCN, have been removed, because they duplicated the text of the "Control Notes to ECCN 2B206" and, as such, were redundant and potentially confusing.

In addition, this rule corrects two typographical errors in the "Items" paragraph of ECCN 2B206. First, the phrase " $1.7 + 1/800 \mu m$ threshold" in the Technical Note to 2B206.a.2 is revised to read " $1.7 + L/800 \mu m$ threshold" to conform with the threshold indicated in 2B206.a.2. Second, the word "simultaneously" in the introductory text of 2B206.b is replaced with the word

"simultaneous".

ECCN 2B229 – Amended to Reflect 2015 NSG Plenary Changes

This final rule amends ECCN 2B229 (Centrifugal multiplane balancing machines) by revising paragraph .b.3 to update certain scientific terminology and clarify the technical parameters, therein, to read as follows: "A minimum achievable residual specific unbalance equal to or less than 10 g-mm/kg per plane." This change reflects the 2015 NSG Plenary changes to the description of centrifugal balancing machines in NSG Annex 3.B.3.b and does not affect the scope of the NP controls on these machines. Instead, this rule revises the previous text in ECCN 2B229.b.3 (i.e., "Capable of balancing to a residual imbalance equal to or less than 0.01 kg × mm/kg per plane") only to update and clarify the controls described therein, without changing their scope.

ECCN 6A203 – Amended to Correct Controls on Radiation-Hardened TV cameras

This rule amends ECCN 6A203 to correct an error in the technical parameters for radiation-hardened TV cameras described in 6A203.d. Specifically, this rule revises the phrase "total radiation dose greater than 50×10^4 Gy (silicon)" to read "total radiation dose greater than 5×10^4 Gy (silicon)," consistent with the description of these cameras in NSG Annex 1.A.2. Previously, as amended by BIS's final rule published on September 5, 2014 (79 FR 52958), this technical parameter overstated the total radiation dose by a factor of ten (i.e., incorrectly indicating a multiple of "50," instead of "5").

License requirements

All of the items affected by the amendments to ECCN 2B229, 2B206 or 6A203, as described above, require a license for NP reasons and AT reasons to the destinations indicated under NP Column 1 or AT Column 1, respectively, on the Commerce Country Chart (see Supplement No. 1 to part 738 of the EAR). In addition, these items may require a license for reasons described elsewhere in the EAR (e.g., the end-user/end-use controls described in part 744 of the EAR or the embargoes and other special controls described in part 746 of the EAR).

Effect of this rule on the scope of certain EAR controls

The changes made by this rule only marginally affect the scope of the EAR controls on the affected items in ECCN 2B206, 2B229, or 6A203. Specifically, the amendments in this rule, which add a new paragraph .c to ECCN 2B206 and revise ECCN 2B229.b.3 and ECCN 6A203.d, are not the result of any change in the scope of the controls for these items on the NSG Annex. Therefore, the purpose of this final rule is not to increase the scope of the NP controls in these ECCNs beyond what should have been the case, previously, but merely to accurately reflect the controls on the affected items, consistent with the descriptions in NSG Annex 1.B.3.b.3, 3.B.b.3, and 1.A.2, respectively.

The addition of a new paragraph .c to ECCN 2B206 to control linear displacement measuring systems, consistent with the description of these systems in NSG Annex 1.B.3.b.3, effectively

reinstates the NP controls and anti-terrorism (AT) controls, but not the national security (NS) controls, that applied to such systems under ECCN 2B006, prior to the publication of BIS's September 20, 2016, final rule (81 FR 64656) that amended ECCN 2B006 to reflect the December 2015 updates to the Wassenaar Arrangement (WA) List of Dual-Use Goods and Technologies. The September 20, 2016, amendments to ECCN 2B006 removed certain linear displacement measuring systems identified on the NSG Annex from control under ECCN 2B006. This final rule amends ECCN 2B206 to reinstate the NP and AT controls that applied to the affected linear displacement measuring systems prior to the September 20, 2016, final rule. The 2016 NSG Plenary updates reflected in new paragraph 2B206.c.1, and the corrections in the Technical Note to 2B206.a.2 and the introductory text of 2B206.b, do not affect the scope of the controls in ECCN 2B206. Therefore, BIS does not anticipate a significant change in the number of license applications that will have to be submitted, as a result of the amendments made to ECCN 2B206 by this rule.

The amendments to ECCN 2B229 do not affect the scope of the NP controls that apply to centrifugal multiplane balancing machines. These amendments revise 2B229.b.3, consistent with NSG Annex 3.B.3.b, to update certain scientific terminology and clarify the technical parameters, therein, and are not intended to affect the scope of the controls in this ECCN. Therefore, BIS does not anticipate a significant change in the number of license applications that will have to be submitted, as a result of the amendments made to ECCN 2B229 by this rule.

The amendments to ECCN 6A203 correct an error in the technical parameters for radiationhardened TV cameras described in 6A203.d, which previously misstated the technical parameters for these cameras by indicating a multiple of "50," instead of "5" (as indicated in NSG Annex 1.A.2), for the "total radiation dose." Because only a small number of license applications are submitted to BIS for these cameras, BIS does not anticipate a significant change in the number of license applications that will have to be submitted, as a result of the amendments made to ECCN 6A203 by this rule.

Export Administration Act

Although the Export Administration Act expired on August 20, 2001, the President, through Executive Order 13222 of August 17, 2001, 3 CFR, 2001 Comp., p. 783 (2002), as amended by Executive Order 13637 of March 8, 2013, 78 FR 16129 (March 13, 2013), and as extended by the Notice of August 4, 2016 (81 FR 52587 (Aug. 8, 2016)), has continued the Export Administration Regulations in effect under the International Emergency Economic Powers Act (50 U.S.C. 1701 *et seq.*). BIS continues to carry out the provisions of the Export Administration Act, as appropriate and to the extent permitted by law, pursuant to Executive Order 13222 as amended by Executive Order 13637.

Rulemaking Requirements

1. Executive Orders 13563 and 12866 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Executive Order 13563 emphasizes the

importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. This rule has been designated a "significant regulatory action," although not economically significant, consistent with Executive Order 12866. Accordingly, the rule has been reviewed by the Office of Management and Budget.

- 2. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) (PRA), unless that collection of information displays a currently valid Office of Management and Budget (OMB) Control Number. This rule contains a collection of information subject to the requirements of the PRA. This collection has been approved by OMB under Control Number 0694-0088 (Multi-Purpose Application), which carries a burden hour estimate of 58 minutes to prepare and submit form BIS-748. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Jasmeet Seehra, Office of Management and Budget, by e-mail to Jasmeet_K._Seehra@omb.eop.gov, or by fax to (202) 395-7285; and to the Regulatory Policy Division, Bureau of Industry and Security, Department of Commerce, 14th Street & Pennsylvania Avenue, N.W., Room 2705, Washington, DC 20230 or by email to RPD2@bis.doc.gov.
- 3. This rule does not contain policies with Federalism implications as that term is defined in Executive Order 13132.

4. The provisions of the Administrative Procedure Act (5 U.S.C. 553) requiring notice of proposed rulemaking, the opportunity for public participation, and a delay in effective date, are inapplicable because this regulation involves a military and foreign affairs function of the United States (See 5 U.S.C. 553(a)(1)). Immediate implementation of these amendments is non-discretionary and fulfills the United States' international commitment to administer controls on specified items consistent with the Guidelines, and the Annex thereto, maintained by the Nuclear Suppliers Group (NSG). The NSG contributes to international security and regional stability through the harmonization of export controls and seeks to ensure that exports do not contribute to the development of nuclear weapons. The NSG consists of 48 member countries that act on a consensus basis and the amendments set forth in this rule revise the scope of nuclear nonproliferation controls in the EAR to more fully reflect the controls implemented by other NSG participating countries, consistent with the NSG Guidelines and the Annex thereto. Because the United States is a significant exporter of the items addressed in this rule, immediate implementation of these regulatory provisions is necessary in order for the NSG to continue to meet its objectives. Any delay in implementation will create a disruption in the movement of affected items globally because of disharmony between the export controls maintained by the United States and the export control measures implemented by other NSG members, resulting in tension between member countries. Export controls work best when all countries implement the same export controls in a timely and coordinated manner.

Further, no other law requires that a notice of proposed rulemaking and an opportunity for public comment be given for this final rule. Because a notice of proposed rulemaking and an opportunity for public comment are not required to be given for this rule under the

Administrative Procedure Act or by any other law, the analytical requirements of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) are not applicable. Therefore, this regulation is issued in final form.

List of Subjects in 15 CFR Part 774

Exports, Reporting and recordkeeping requirements.

For the reasons stated in the preamble, part 774 of the Export Administration Regulations (15 CFR parts 730-774) is amended as follows:

PART 774 - [AMENDED]

1. The authority citation for 15 CFR Part 774 continues to read as follows:

Authority: 50 U.S.C. 4601 et seq.; 50 U.S.C. 1701 et seq.; 10 U.S.C. 7420; 10 U.S.C. 7430(e); 22 U.S.C. 287c, 22 U.S.C. 3201 et seq.; 22 U.S.C. 6004; 30 U.S.C. 185(s), 185(u); 42 U.S.C. 2139a; 43 U.S.C. 1354; 15 U.S.C. 1824a; 50 U.S.C. 4305; 22 U.S.C. 7201 et seq.; 22 U.S.C. 7210; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 4, 2016, 81 FR 52587 (August 8, 2016).

Supplement No. 1 to Part 774 - [Amended]

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2. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 2—

Materials Processing, ECCN 2B206 is amended, under the "List of Items Controlled" section, by

removing the "ECCN Controls" paragraph and by revising the "Items" paragraph to read as follows:

2B206 Dimensional inspection machines, instruments or systems, other than those

described in 2B006, as follows (see List of Items Controlled).

* * * * *

List of Items Controlled

Related Controls: * * *

Related Definitions: * * *

Items:

Control Notes to ECCN 2B206: (1) Machine tools that can be used as measuring machines are controlled by ECCN 2B206 if they meet or exceed the control parameters specified in this entry for the measuring machine function. (2) The machines described in ECCN 2B206 are controlled by this entry if they exceed the specified control threshold anywhere in their operating range.

Technical Note to ECCN 2B206: All parameters of measurement values in this entry represent plus/minus, i.e., not total band.

- **a.** Computer controlled or numerically controlled coordinate measuring machines (CMM) with either of the following characteristics:
- **a.1.** Having only two axes with a maximum permissible error of length measurement along any axis (one dimension), identified as any combination of $E_{0x \text{ MPE}}$, $E_{0y \text{ MPE}}$ or $E_{0z \text{ MPE}}$, equal to or less (better) than (1.25 + L/1000) µm (where L is the measured length in mm) at any point within the operating range of the machine (i.e., within the length of the axis), according to ISO 10360-2 (2009); or
- **a.2.** Having three or more axes with a three dimensional (volumetric) maximum permissible error of length measurement, identified as E_0 , $_{MPE}$, equal to or less (better) than (1.7 + L/800) μ m (where L is the measured length in mm) at any point within the operating range of the machine (i.e., within the length of the axis), according to ISO 10360-2 (2009).

Technical Note to 2B206.a.2: The E_0 , $_{MPE}$ of the most accurate configuration of the CMM specified according to ISO 10360-2 (2009) by the manufacturer (e.g., best of the following: Probe, stylus length, motion parameters, environment) and with all compensations available shall be compared to the $1.7 + L/800 \mu m$ threshold.

- **b.** Systems for simultaneous linear-angular inspection of hemishells, having both of the following characteristics:
- **b.1.** "Measurement uncertainty" along any linear axis equal to or less (better) than 3.5 μm per 5 mm; and
 - **b.2.** "Angular position deviation" equal to or less than 0.02°.
- c. Linear displacement measuring systems having both of the following characteristics:
 - **c.1.** Containing a "laser;" and
- **c.2.** Capable of maintaining, for at least 12 hours over a temperature range of \pm 1 K around a standard temperature and a standard pressure, both:
 - c.2.a. A "resolution" over their full scale of 0.1 µm or better; and
- **c.2.b.** A "measurement uncertainty" equal to or better (less) than (0.2 + L/2000) μm (L is the measured length in millimeters).

Control Note to 2B206.c: 2B206.c does not control measuring interferometer systems, without closed or open loop feedback, containing a "laser" to measure slide movement errors of machine tools, dimensional inspection machines, or similar equipment.

Technical Note to 2B206.c: In 2B206.c, "linear displacement" means the change of distance between the measuring probe and the measured object.

3. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 2—Materials Processing, ECCN 2B229 is amended in the "Items" paragraph, under the "List of Items Controlled" section, by revising paragraph .b.3 to read as follows:

2B229 Centrifugal multiplane balancing machines, fixed or portable, horizontal or vertical, as follows (see List of Items Controlled).

* * * * *

List of Items Controlled

* * * * *

Items:

* * * * *

b. * * *

b.3. A minimum achievable residual specific unbalance equal to or less than 10 g-mm/kg per plane; *and*

* * * * *

4. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 6—Sensors and Lasers, ECCN 6A203 is amended in the "Items" paragraph, under the "List of Items Controlled" section, by revising paragraph .d to read as follows:

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6A203 High-speed cameras, imaging devices and "components" therefor, other than those

controlled by 6A003 (see List of Items Controlled).

List of Items Controlled

Items:

d. Radiation-hardened TV cameras, or lenses therefor, "specially designed" or rated as radiation

hardened to withstand a total radiation dose greater than 5×10^4 Gy (silicon) without operational

degradation.

DATED: December 20, 2016.

Kevin J. Wolf

Assistant Secretary

for Export Administration

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